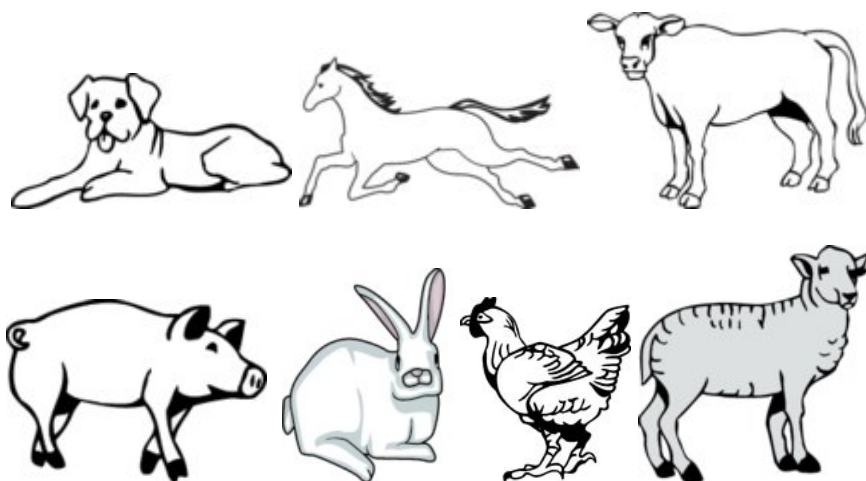


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# 2006 4-H Animal Science Fair

## Regional Program Evaluation



### **Evaluation Report**

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# **2006 4-H Animal Science Fair Regional Program Evaluation**

## **Introduction**

Summertime means fair time, and across the country 4-H youth, leaders, parents, and Extension educators gear up for this annual event of fun, competition, teamwork, and public interaction. For many 4-H members, fair is the highlight of the 4-H year, and most 4-H alumni will fondly recall the many summer days spent getting ready for and participating in fair.

Despite its almost universal presence in county 4-H programs, very little research has been done to understand the contribution 4-H fair makes to the development of the youth who participate. As the program theory for the field of positive youth development becomes clearer, it is becoming more and more important that we understand the relative contributions particular elements of the 4-H program make to positive youth development. We know fair is fun- but does it play a role in the development of youth, and if so, in what ways?

This study looked at four different aspects of fair participation- herdsmanship, competition, life at fair, and market animal to determine if these aspects had differing effects on life skill development. The study also measured the change in self-esteem and proactive coping skills in fair participants over the course of the 4-H year. The study was limited to members participating in animal science projects- including livestock, poultry, horse, dog, and small animals.

## **Review of the Literature**

Ask anyone who is even vaguely aware of the 4-H program about what 4-H is, and most people will talk about youth and animals at the county fair. While the participating in the county fair is often a part of a 4-H member's experience, 4-H is much more than kids and animals competing for ribbons. 4-H is a positive youth development program in that its purpose is to engage youth in activities that build skill and competencies in a supportive and empowering environment (Roth & Brooks-Gunn, 2003). 4-H provides the opportunity for youth to learn about traditional topics such as animal science, cooking, sewing, and gardening. But today, 4-H members are just

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as likely to be learning about computers, robotics, GPS technology, and hosting community meetings. 4-H has long understood that providing opportunities for youth to learn about things that interest them is just one part of the way the 4-H program works.

#### 4-H and Positive Youth Development

While they are learning project content, youth in 4-H also develop important life skills – such as responsibility, decision making, public speaking, and teamwork (Hendricks, 1996). This learning takes place in a supportive atmosphere, often with the help and encouragement of a volunteer leader. Program atmosphere is one of the critical elements of youth development programs (Roth & Brooks-Gunn, 2003), and the positive atmosphere of 4-H allows youth to feel a sense of belonging, opportunities to develop mastery, independence, and a spirit of generosity- essential elements in high quality youth development programs (Kress, 2004). Gambone, Klem and Connell (2002) report that youth who are exposed to these elements tend to develop important skills, be responsible, do well in school, have healthy interests, and avoid negative behaviors.

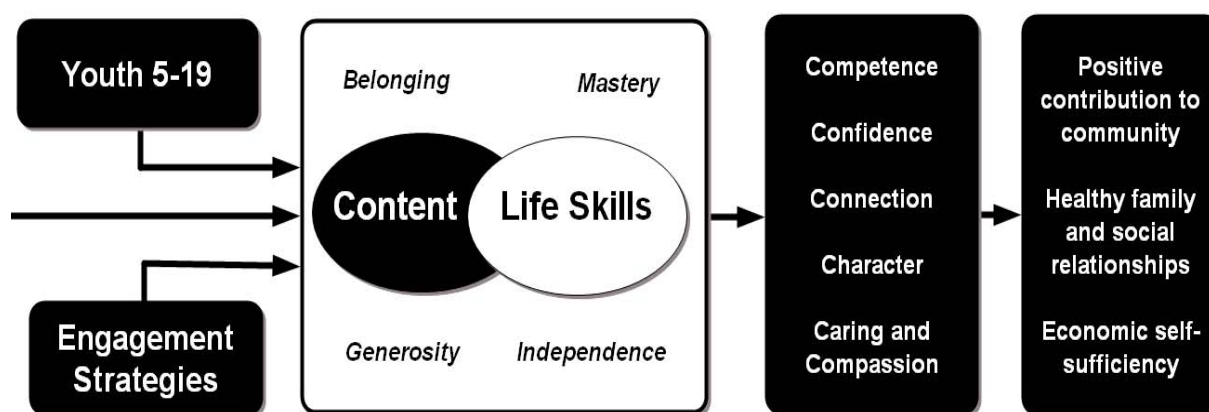
The larger goal of positive youth development programs like 4-H is to encourage and facilitate the growth of “functionally valued” behaviors that result in thriving and well being throughout adolescence, with the ultimate goal of helping youth develop into productive and positive adults (Gambone & Connell, 2004, Lerner, 2004; Roth & Brooks-Gunn, 2003). Functionally valued behaviors include *competence, character, connection, confidence, and caring*, commonly called the “5 C’s” (Eccles & Gootman, 2002; Lerner, Fisher, & Weinberg, 2000; Pittman, Irby, & Ferber, 2001; Roth & Brooks-Gunn, 2003).

The program model, or theory of change for the 4-H program, then, can be described in the following manner: 1) youth ages five to 19 participate in intentional educational programs (engagement strategies) that; 2) offer opportunities for the learning content and developing life skills in settings that incorporate the four essential elements of belonging, mastery, independence, and generosity; 3) as a result, youth develop the important characteristics of competence, confidence, connection, character, and caring, that leads ultimately to; 4) well-being in adulthood that includes healthy family and social relationships, positive contributions to the

community, and economic self-sufficiency. The 4-H program theory is presented graphically in Figure One.

Figure One

4-H Program Model



County Fair Participation and Positive Youth Development

For most 4-H youth development educators summer means one thing- FAIR! This long-standing tradition in many 4-H programs consumes a great deal of time and energy, and sometimes leaves agents wondering if their time would be better spent doing other youth development programming. Traditionally, the county 4-H fair is viewed as a way for 4-H youth to showcase their project work, receive recognition for their efforts, and develop leadership and teamwork skills (Diem & Rothenburger, 2001), but the fair can also provide important opportunities for positive youth development. Although studies about the impact of county 4-H fairs on youth are limited, there is some recent evidence that fairs can play an important role in a young person's development. In a study conducted by Arnold, Meinhold, Skubinna, & Ashton (in-press) youth reported that fair participation helped develop important life skills. They also found that "having fun", "achieving goals", "spending time with friends," and "teamwork", were the highest rated motivators for participation in 4-H fair.

Another important contribution of county fairs is the role they play in building what has been termed "social capital" (Putnam, 2000). The idea behind social capital is that it is "not what you know, but who you know" –emphasizing the importance of good community connections and

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social networks. Social capital, especially personal connections and community integration has been shown to be a key factor in individual health and well-being (Halpern, 2005). Putnan (2000) reveals how our sense of community and connectedness with others has greatly diminished in the past 50 years, at the same time that such connectedness is increasingly important. County fairs offer youth the ability to build skills and have fun, but they are also a wonderful setting for the development of social connectedness- with other youth, parents, 4-H leaders, auction buyers, and community members.

Despite the lack of research on youth and county fairs, 4-H educators, parents, and youth believe and often testify that county fairs provide an opportunity for youth to develop important life skills in a social setting that is not replicated elsewhere. Given the amount of time and resources invested in county fair programs, and the large number of youth who participate in the fair each summer, this study was conducted to evaluate if participation in county 4-H fairs contributes to the positive development of youth. This study focused on 4-H members participating in animal science projects at fair. The evaluation questions were:

1. Does 4-H fair have an impact in the development of life skills in youth?
2. Do different aspects of fair, such as herdsmanship, competition, and fair life impact life skill development differently?
3. Do youth develop and increase in self-esteem and proactive coping skills as a result of participating in the 4-H program and 4-H fair?
4. In what ways do volunteer 4-H leaders support and help 4-H members at fair?
5. Does fair provide a setting for youth that includes the four essential elements?
6. Do parents of participating youth feel that 4-H fair has an impact on their child's development?

### **Methods**

The protocol for this evaluation was developed collectively by the 4-H faculty agents in each of the six participating counties. The group met several times to develop the evaluation instrument and determine the best method for data collection.

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### *Participants*

Youth participants in this evaluation were 557 4-H members who took part in the animal science portion of the county fair in one of six counties in Oregon during the summer of 2006. Counties included Coos (n = 59); Crook (n = 87); Curry (n = 22); Douglas (n = 96); Jackson (n = 129); and Josephine (n = 131). There were an additional 33 participants who did not indicate which county they were from. Participants ranged in age from nine to 19; the average age was 14.51 years. Sixty-eight percent of the participants were female, and 32% were male. Participants had been in 4-H for an average of 4.03 years, and had participated in the county fair for an average of 3.93 years.

In addition to the youth, 168 parents participated in the evaluation (22 from Coos, 16 from Crook, 12 from Curry, 48 from Douglas, 19 from Jackson, 42 from Josephine, and nine who did not indicate a county). Fifty-two percent of parents had only one child participating in fair, 35% had two children participating, 10% had three, and 3% had four children. Parents were instructed to complete only one questionnaire, regardless of the number of children they had participating in the fair. If parents had more than one child participating, they were asked to answer the questions “generally about their children.”

### *Instruments*

Two instruments for this evaluation were developed by the county 4-H faculty agents in collaboration with the state 4-H evaluation specialist (see Appendix One and Two). The youth instrument contained demographic information (age, gender, 4-H project participation, length of time in 4-H), life skill development items, the Rosenberg Self-Esteem Scale (Rosenberg, 1989), the Proactive Coping Inventory (Greenglass, Schwarzer, & Taubert, 1999), and items related to the role of the 4-H leader. The adult instrument contained the same 4-H project participation, life skills, and 4-H leader questions as the youth survey. In addition, the adult instrument contained four additional questions about the essential elements of the 4-H program (Kress, 2004).

### *Life skill scales.*

Life skill development items were selected and adapted from the Targeting Life Skills model that is frequently used to describe specific skills youth learn through 4-H participation (Hendricks,

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1996). Specific life skills from the model were selected by consensus of the team to match four aspects of county fair participation. These aspects include 1) Herdsmanship- where youth team together to present their animals and barn area to the public. Herdsmanship includes personal and group appearance, interacting with the public and each other in a polite and courteous manner, taking care of animals, and presenting a neat, tidy and nicely decorated barn area; 2) Competition- where youth compete with their animals in a variety of fair classes, such as showmanship, performance, and conformation/type; 3) Life during fair week- where members work (and sometimes live) together for several days at a time. Fair provides a wonderful opportunity for a temporary living and learning community for youth; and 4) the 4-H market animal part of fair, where about 66% of youth participating in fair raise an animal that is sold at an auction during the fair.

A total of 12 life skills selected for herdsmanhip (e. g. cooperation, teamwork, time management); 13 selected for competition (e. g. sportsmanship, planning, stress management); 14 for life at fair (e. g. making friends, independence, decision making); and 14 for market animal (e. g. financial management, organization, record keeping). The selected life skills were not exclusive by category and some items were selected for more than one aspect (e. g. responsibility, cooperation, teamwork). No attempt was made to create a concept scale from the selected items, and no psychometric testing (e.g. factor analysis) was conducted. Alpha coefficients for inter-item reliability (Cronbach, 1971) of each set of life skill items were determined to be .908 (herdsmanship); .928 (competition); .948 (life at fair); and .957 (market animal). Respondents were asked to rate how much participating in each aspect of fair helped the youth get better at the life skill. Repondents rated each item as (1) none; (2) minimal; (3) some; (4) quite a bit; or (5) a lot! Table One shows the life skill items selected for each area.



Table One

*Life Skill Items for Four Aspects of Fair Participation*

<b>Herdsmanship</b>	<b>Competition</b>	<b>Life at Fair</b>	<b>Market Animal</b>
Cooperating with others	Managing stress	Making friends	Financial management
Being organized	Being organized	Helping others	Salesmanship
Managing time	Cooperating with others	Being independent	Record keeping
Making decisions	Managing time	Cooperating with others	Cooperating with others
Being responsible	Making decisions	Being organized	Being organized
Being a team member	Being responsible	Making decisions	Making decisions
Talking to the public	Being a team member	Being responsible	Being responsible
Being a self-starter	Being a self-starter	Being a team member	Being a team member
Solving problems	Solving problems	Communicating with others	Communicating with others
Setting goals	Planning	Solving problems	Solving problems
Resolving conflicts	Resolving conflicts	Setting goals	Setting goals
Managing feelings	Managing feelings	Resolving conflicts	Resolving conflicts
$\alpha = .91$	Sportsmanship	Managing feelings	Managing feelings
	$\alpha = .93$	Managing stress	Managing stress
		$\alpha = .95$	$\alpha = .98$

*Rosenberg self-esteem scale.*

The Rosenberg Self-Esteem (Rosenberg, 1989) scale was used in this evaluation as a measure of the domain of personal confidence. Although the concept of self-esteem is not completely synonymous with confidence, research has revealed that people with higher self-esteem feel good about themselves, cope effectively with challenges, and handle criticism well (Heatherton & Wyland, 2003). Self-esteem is a sense of self that is related to one's skills, abilities, relationships, and the future (Heatherton & Wyland, 2003). In essence, then, self-esteem is about confidence. While there is some evidence that suggests negative effects related to very high self-esteem (Baumeister, 1998), there is general agreement that high self-esteem is associated with a healthy, happy and productive life.

The Rosenberg Self-Esteem Scale contains 10 items. Respondents were asked to rate each statement using a four-point Likert scale indicating their level of agreement or disagreement with each of the statements: (1) strongly disagree, (2) disagree, (3) agree, and (4) strongly agree. Questions two, five, eight, nine, and ten are reverse coded. Internal reliability coefficients for the scale were calculated using Cronbach's alpha and determined to be .85 for the pre-test and .83 for the post test.

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*Proactive coping inventory.*

The Proactive Coping Scale (Greenglass, Schwarzer, & Taubert, 1999) was used to measure the concept of “competence” another important functionally-valued youth development outcome. The concept of coping includes a response to challenges, or upcoming events as well as to handling self-imposed goals and challenges in a proactive manner (Schwarzer & Knoll, 2003). While the concept of competence is clearly broader than merely coping well, those who are able to develop effective coping skills also develop a certain level of competence in dealing with life situations (Lazarus & Folkman, 1984).

The Proactive Coping Inventory contains 14 items. Respondents are prompted to respond to each statement using a four-point Likert scale indicating their level of agreement or disagreement with each of the statements: (1) Not true at all; (2) barely true; (3) somewhat true; and (4) and completely true. Questions two, nine, and 14 are reverse coded. Internal reliability coefficients for the scale were calculated using Cronbach’s alpha and determined to be .77 for the pre-test and .80 for the post test.

*4-H leader role.*

The implementation of the 4-H program is heavily dependent on the service of volunteer 4-H leaders. This is particularly true in the 4-H animal science area as these groups typically follow a traditional 4-H club structure of one or more volunteer leaders working with a group of young people. Because of the research evidence showing the important role that supportive non-parental adult relationships play in positive youth development (Roth & Brooks-Gunn, 2003), this evaluation also asked questions regarding the role of the 4-H leader in the young person’s 4-H and fair experience.

Five questions related to the youths’ experience with his or her 4-H leader were developed for the questionnaire. The questions focused on: (1) if the 4-H leader helped the youth prepare for fair; (2) if the 4-H leader helped the youth to be successful at fair; (3) if the 4-H leader supported the youth at fair; (4) if the 4-H leader made 4-H a fun experience for youth; and (5) if the 4-H leader encouraged the youth. Respondents rated each item on a five-point scale: (1) none; (2) minimal; (3) some; (4) quite a bit; and (5) a lot. The items for this part of the evaluation were

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developed by the evaluation team for this particular project. No attempt was made to create a concept scale from the items, and no psychometric testing (e.g. factor analysis) was conducted. An inter-item reliability was calculated using Cronbach's alpha and determined to be .93.

#### *Essential elements items.*

The parent questionnaire contained four questions related to the essential elements of 4-H. The four questions address the parents' sense of how well their child: (1) Feels a sense of belonging in 4-H; (2) has opportunities to develop mastery; (3) is developing independence; and (4) is developing generosity. Parents were asked to rate each item on a five-point scale: (1) none; (2) minimal; (3) some; (4) quite a bit; and (5) a lot. No attempt was made to create a concept scale from the items, and no psychometric testing (e.g. factor analysis) was conducted. An inter-item reliability was calculated using Cronbach's alpha and determined to be .88.

#### *Procedure*

Using a retrospective pre-test methodology (Pratt, McGuigan, & Katzev, 2000), participants were asked to rate each question based on how their perceived knowledge and ability today and their perceived knowledge and ability at the beginning of the 4-H year. This type of assessment is commonly referred to as the *perceived-change* method, and is used to measure how much program participants feel they have changed as a result of a program (Lam & Bengo, 2003). Concerns have been raised about the potential for program results to be overestimated when measured using a retrospective pre-test method, but there is evidence to suggest that this method is useful when the goal of the evaluation is assess individual perceptions of change, as we did in this study (Hill & Betz, 2005).

### **Data Analysis**

Frequencies and descriptive analyses were use to analyze life skill items on the youth and parent questionnaires relating to herdsmanship, life at fair, competition, and market animal participation. Ranges, mean scores, standard deviations, and frequencies for these items are presented in the results section.

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Frequencies and descriptive analyses were also used to analyze items relating to the role of the 4-H leader on the youth and parent questionnaires, and for the items related to the essential elements on the parent questionnaire. Ranges, mean scores, standard deviations, and frequencies for these items are presented in the results section.

Paired t-test analysis was used to examine changes in self-esteem and proactive coping skills. Pre and post mean scores, standard mean errors, t score, and significance levels for this analysis are reported in the results section.

## **Results**

### **Life Skill Development**

Participation in the 4-H Animal Science fair does contribute to life skill development in youth. It appears that different aspects of fair participation contribute to the development of particular life skills. For example, youth reported that participating in the herdsmanship portion of the fair contributed most to the development of “responsibility” (4.07) while competition contributed most to the development of “sportsmanship” (4.04) and “responsibility” (4.00). Youth reported that life at fair contributed most highly to “responsibility” (3.99), “helping others” (3.96), and “cooperation” (3.91). Youth reported that participating in the market animal portion of fair contributed most to the development of “responsibility” (4.00). Tables Two through Five show the range, mean scores, and standard deviations of youth life skill ratings for herdsmanship, competition, life at fair, and market animal participation.

Table Two

*Herdsmanship- Life Skill Development*

	<b>N</b>	<b>Min.</b>	<b>Max.</b>	<b>Mean</b>	<b>SD</b>
Responsibility	547	1	5	4.07	0.96
Teamwork	546	1	5	3.95	1.04
Cooperation	551	1	5	3.82	0.96
Organization	552	1	5	3.72	1.01
Time management	548	1	5	3.62	1.03
Public speaking	544	1	5	3.59	1.18
Decision making	546	1	5	3.56	1.08
Setting goals	544	1	5	3.48	1.15
Self- initiative	546	1	5	3.44	1.12
Problem solving	547	1	5	3.44	1.08
Managing feelings	534	1	5	3.29	1.28
Resolving conflicts	542	1	5	3.29	1.18

Table Three

*Competition- Life Skill Development*

	<b>N</b>	<b>Min.</b>	<b>Max.</b>	<b>Mean</b>	<b>SD</b>
Sportsmanship	544	1	5	4.04	1.10
Responsibility	549	1	5	4.00	1.01
Cooperation	549	1	5	3.83	1.05
Time management	546	1	5	3.76	1.05
Teamwork	549	1	5	3.76	1.14
Decision making	545	1	5	3.72	1.04
Planning	548	1	5	3.70	1.11
Organization	550	1	5	3.66	1.10
Problem solving	541	1	5	3.54	1.11
Self- initiative	540	1	5	3.53	1.14
Managing feelings	544	1	5	3.36	1.25
Stress management	549	1	5	3.32	1.23
Resolving conflicts	541	1	5	3.24	1.13

Table Four

*Life at Fair- Life Skill Development*

	<b>N</b>	<b>Min.</b>	<b>Max.</b>	<b>Mean</b>	<b>SD</b>
Responsibility	541	1	5	3.99	1.00
Helping others	546	1	5	3.96	1.00
Cooperation	541	1	5	3.91	1.00
Communication	536	1	5	3.87	1.05
Independence	542	1	5	3.85	1.02
Teamwork	539	1	5	3.85	1.09
Organization	543	1	5	3.75	1.07
Making friends	546	1	5	3.71	1.15
Decision making	539	1	5	3.68	1.03
Goal setting	535	1	5	3.66	1.14
Problem solving	535	1	5	3.60	1.07
Stress management	536	1	5	3.59	1.21
Managing feelings	534	1	5	3.55	1.21
Conflict resolution	535	1	5	3.51	1.11

Table Five

*Market Animal- Life Skill Development*

	<b>N</b>	<b>Min.</b>	<b>Max.</b>	<b>Mean</b>	<b>SD</b>
Responsibility	360	1	5	4.00	1.02
Cooperation	359	1	5	3.87	1.04
Decision making	361	1	5	3.81	1.04
Teamwork	359	1	5	3.79	1.05
Organization	361	1	5	3.77	1.06
Communication	356	1	5	3.76	1.09
Record keeping	363	1	5	3.75	1.05
Goal setting	357	1	5	3.74	1.13
Problem solving	359	1	5	3.69	1.10
Salesmanship	360	1	5	3.69	1.05
Financial management	365	1	5	3.59	1.13
Stress management	363	1	5	3.58	1.28
Managing feelings	358	1	5	3.56	1.29
Conflict resolution	360	1	5	3.54	1.14

Results from the parent surveys supported the youth sense of life skill development. Parents reported that the herdsmanship portion of fair contributed most highly to the development of

“responsibility” (4.16) and “teamwork” (4.12). Parents felt that competition contributed most to the development of “sportsmanship” (4.22) followed closely by “responsibility” (4.20), “time management” (4.02), and “planning” (4.00). Parents reported that life at fair contributed most highly to “independence” (4.24), “cooperation” (4.21), “responsibility” (4.20), “helping others” (4.16) and “teamwork” (4.15). Parents reported that participation in the market animal project contributed most to the development of “responsibility” (4.18), “goal setting” (4.04), and “communication” (4.03). Tables Six through Nine show the range, mean scores, and standard deviations of the parent report of youth life skill development for herdsmanship, competition, life at fair, and market animal participation.

Table Six

*Parent Report of Life Skill Development- Herdsmanship*

	<b>N</b>	<b>Min.</b>	<b>Max.</b>	<b>Mean</b>	<b>SD</b>
Responsibility	164	1	5	4.16	0.73
Teamwork	164	2	5	4.12	0.80
Cooperation	165	1	5	3.96	0.78
Time management	165	1	5	3.81	0.87
Organization	166	1	5	3.80	0.87
Self- initiative	165	1	5	3.75	0.88
Public speaking	164	1	5	3.75	1.00
Decision making	166	1	5	3.68	0.84
Problem solving	165	1	5	3.55	0.86
Managing feelings	165	1	5	3.42	1.04
Setting goals	165	1	5	3.38	1.01
Resolving conflicts	162	1	5	3.34	0.96

Table Seven

*Parent Report of Life Skill Development- Competition*

	<b>N</b>	<b>Min.</b>	<b>Max.</b>	<b>Mean</b>	<b>SD</b>
Sportsmanship	167	1	5	4.22	0.82
Responsibility	166	2	5	4.20	0.71
Time management	167	2	5	4.02	0.76
Planning	166	2	5	4.00	0.79
Organization	168	2	5	3.99	0.75
Decision making	166	2	5	3.96	0.80
Cooperation	168	2	5	3.93	0.78
Self- initiative	166	1	5	3.89	0.85
Managing feelings	167	1	5	3.83	0.95
Stress management	168	1	5	3.79	0.91
Problem solving	167	1	5	3.78	0.89
Teamwork	167	2	5	3.78	0.92
Resolving conflicts	167	1	5	3.44	0.99

Table Eight

*Parent Report of Life Skill Development- Life at Fair*

	<b>N</b>	<b>Min.</b>	<b>Max.</b>	<b>Mean</b>	<b>SD</b>
Independence	168	2	5	4.24	0.72
Cooperation	167	2	5	4.21	0.73
Responsibility	168	2	5	4.20	0.75
Helping others	167	2	5	4.16	0.75
Teamwork	167	2	5	4.15	0.80
Organization	168	1	5	3.99	0.84
Communication	168	1	5	3.99	0.80
Decision making	167	2	5	3.96	0.81
Making friends	168	1	5	3.90	0.97
Goal setting	168	2	5	3.85	0.91
Problem solving	168	1	5	3.82	0.83
Stress management	168	1	5	3.82	0.88
Managing feelings	168	1	5	3.78	0.85
Conflict resolution	168	1	5	3.70	0.93



Table Nine

*Parent Report of Life Skill Development- Market Animal*

	N	Min.	Max.	Mean	SD
Responsibility	107	2	5	4.18	0.75
Goal setting	107	3	5	4.04	0.78
Communication	106	2	5	4.03	0.76
Decision making	107	2	5	3.98	0.76
Teamwork	107	2	5	3.97	0.78
Cooperation	107	2	5	3.95	0.79
Financial management	107	1	5	3.95	0.94
Problem solving	107	3	5	3.93	0.76
Stress management	107	2	5	3.91	0.81
Organization	107	2	5	3.90	0.81
Managing feelings	107	2	5	3.89	0.84
Salesmanship	106	1	5	3.88	0.94
Record keeping	107	1	5	3.83	0.91
Conflict resolution	107	2	5	3.79	0.85

Self-Esteem and Coping Skills

Youth reported significant changes in level of self-esteem and proactive coping skills ( $p = .000$ ). The mean rating for self-esteem prior at the beginning of the 4-H year was 20.82 and 22.08 after fair (scale range is 0 to 30). The mean score for proactive coping skills was 40.42 at the beginning of the year and 43.41 after fair (scale range is 14-56). Table Eleven shows the complete information for the paired t test analysis.

Table Eleven

*Paired T-test for Changes in Mean Score Pre to Post*

	Pre	Post	SME	t	df	Sig.
Self-Esteem	20.82	22.08	.156	-8.13	399	.000
Proactive Coping	40.42	43.41	.23287	-12.84	430	.000

Role of 4-H Leader

Overall, most youth rated their relationship with their 4-H leader positively. Seventy-two percent of youth said that their 4-H leader helped them prepare for fair either “quite a bit” or “a lot” (scores of four or five on a one to five scale). Additionally, 72% of youth said reported that their 4-H leader helped them be successful at fair, 78% reported that their 4-H leader supported them

during fair, 77% reported that their leader made 4-H fun, and 81% reported that their 4-H leader provided encouragement (ratings of four or five). Figures Two through Six show the frequencies of youth ratings for each of the questions related to the role of the 4-H leader.

Figure Two

*4-H Leader Helps Prepare for Fair (Youth)*

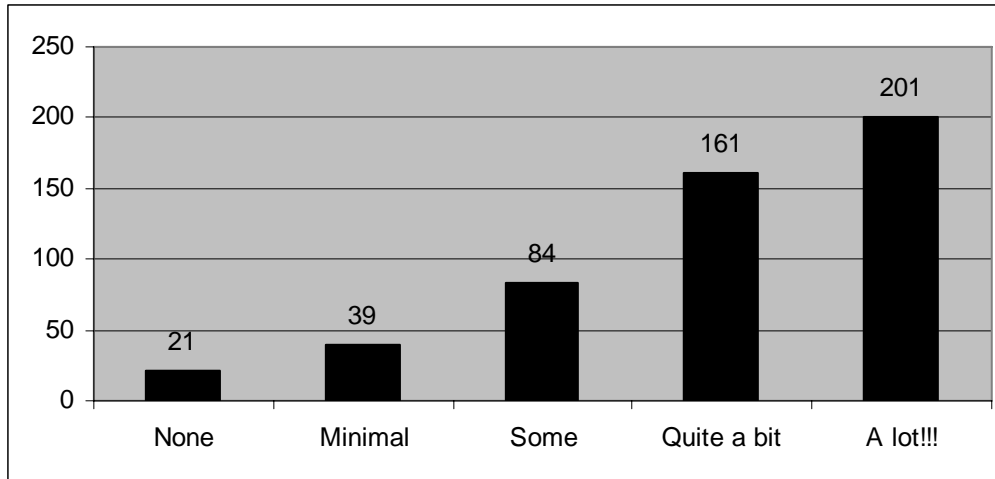


Figure Three

*4-H Leader Helps Youth be Successful at Fair (Youth)*

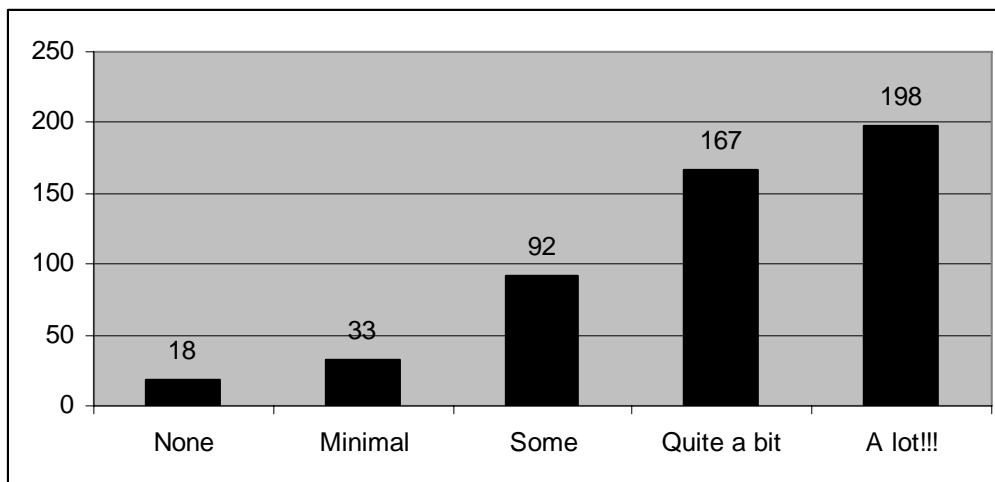


Figure Four

*4-H Leader Supports Youth During the 4-H Year (Youth)*

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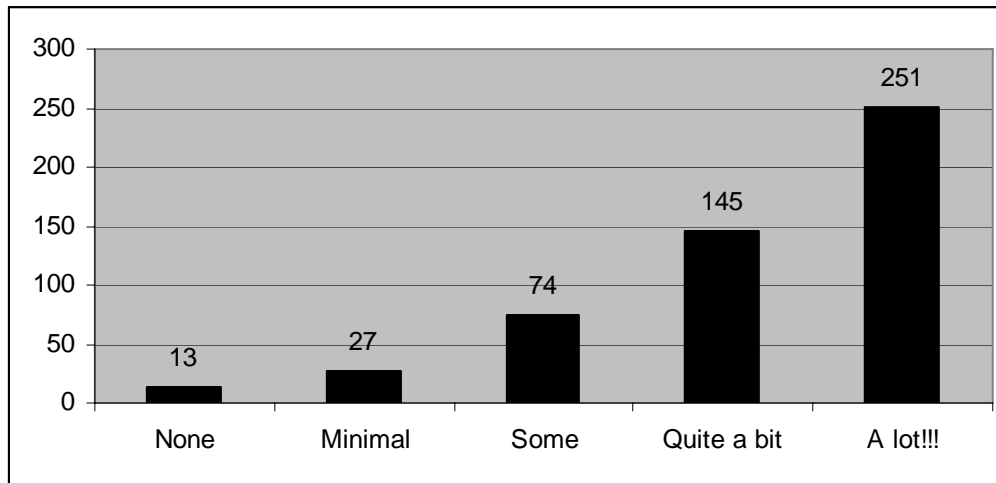


Figure Five

*4-H Leader Makes 4-H a Fun Experience (Youth)*

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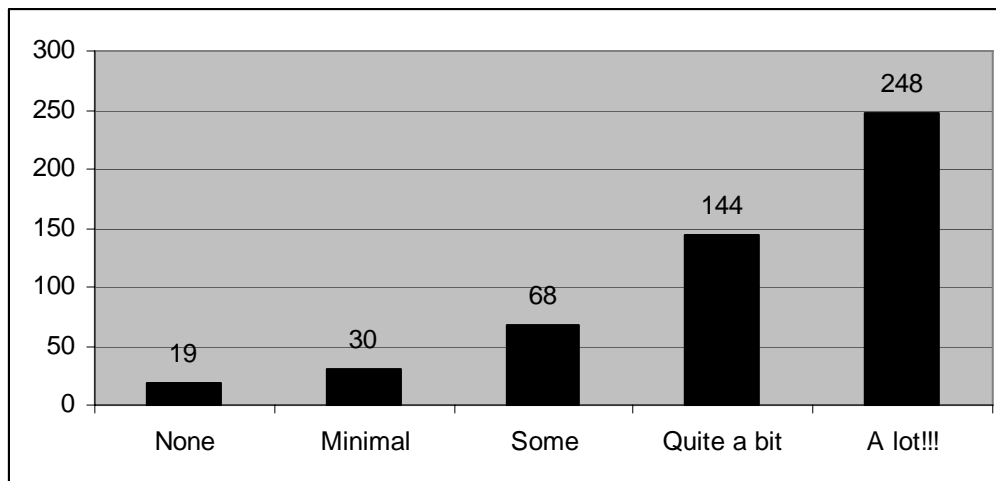
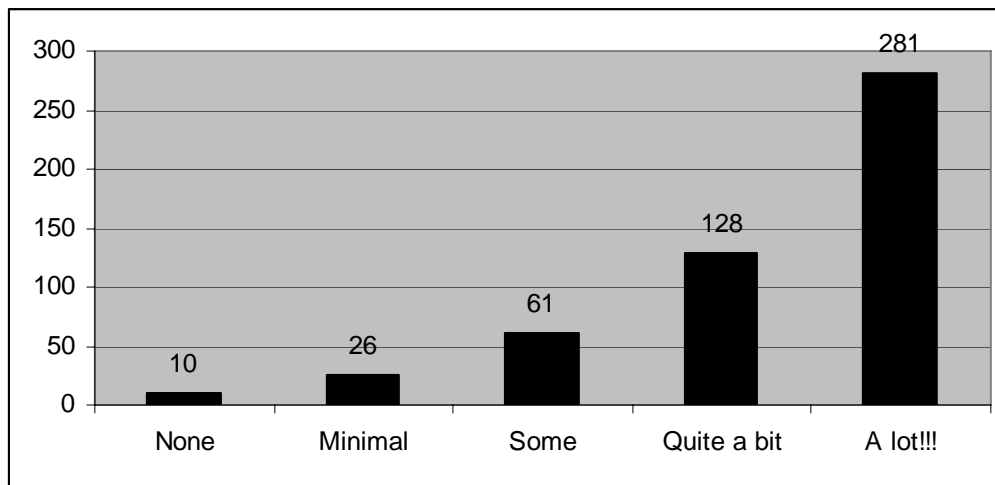


Figure Six

*4-H Leader Encourages Youth (Youth)*



Although the ratings were somewhat lower than those of the youth, parents also reported that their children had positive relationships with 4-H leaders. Seventy percent of parents said that their child's 4-H leader helped them prepare for fair either "quite a bit" or "a lot" (scores of four or five on a one to five scale). Additionally, 69% of parents reported that the 4-H leader helped their children to be successful at fair, 73% reported that the 4-H leader supported their children during fair, 75% reported that the leader made 4-H fun, and 75% reported that the 4-H leader provided encouragement (ratings of four or five). Figures Seven through Eleven show the frequencies of youth ratings for each of the questions related to the role of the 4-H leader.

Figure Seven

*4-H Leader Helps Prepare for Fair (Parents)*

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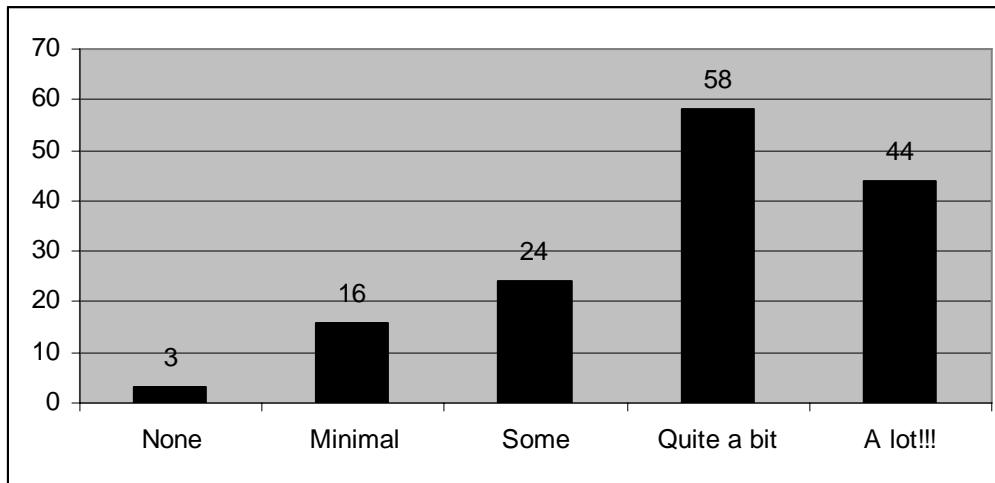


Figure Eight

*4-H Leader Helps Youth be Successful at Fair (Parents)*

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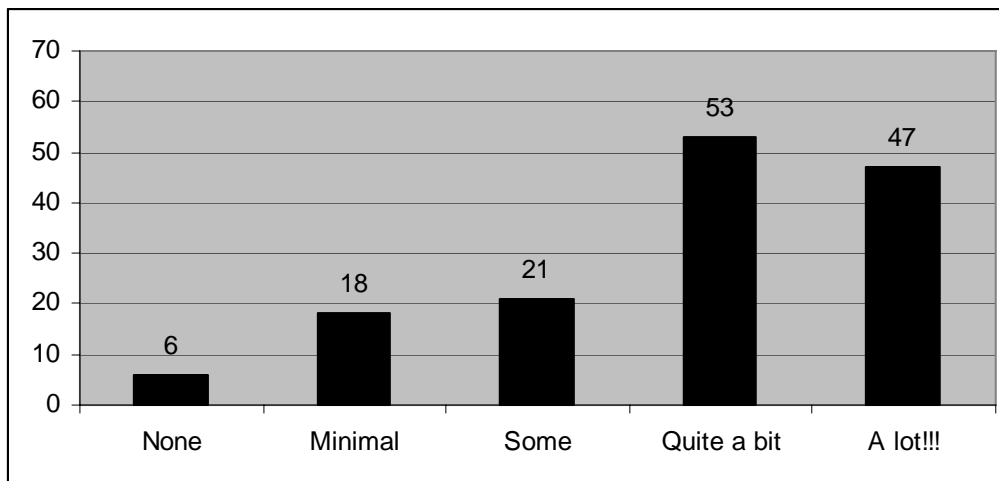


Figure Nine

*4-H Leader Supports Youth During the 4-H Year (Parents)*

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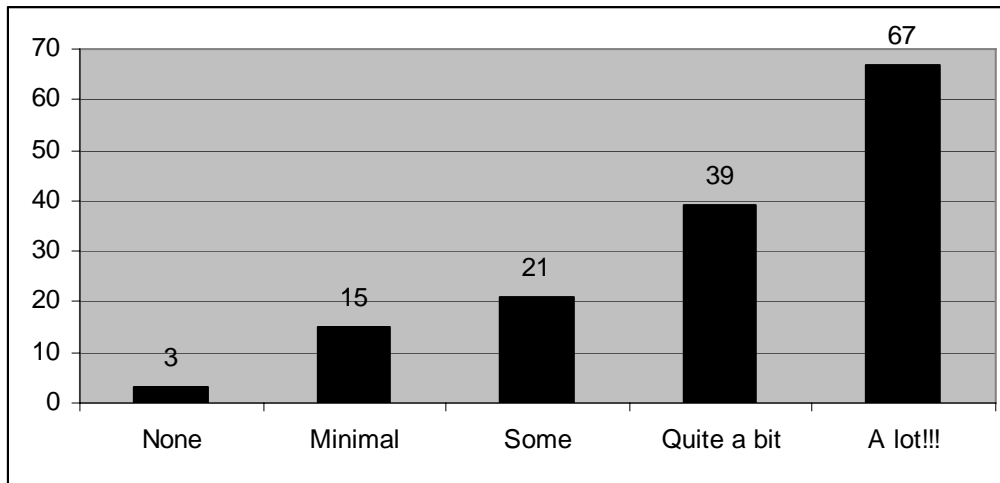


Figure Ten

*4-H Leader Makes 4-H a Fun Experience (Parents)*

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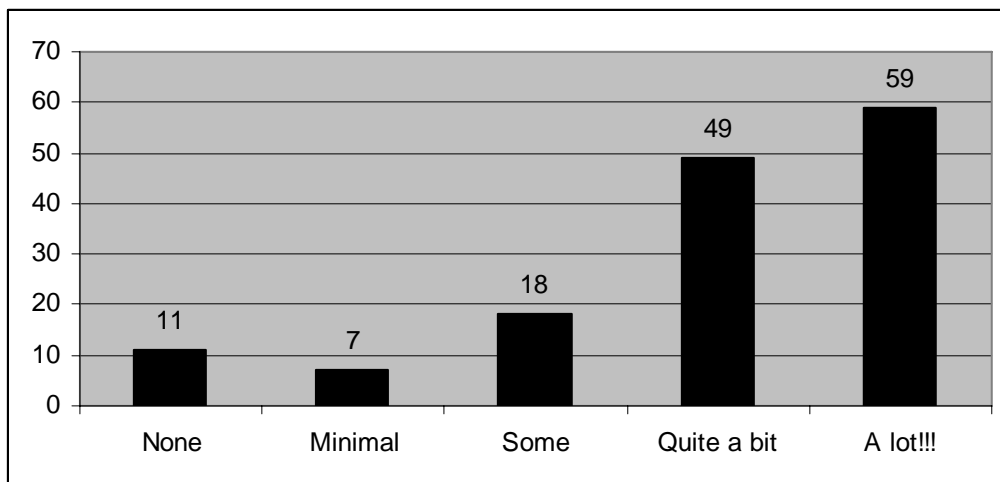
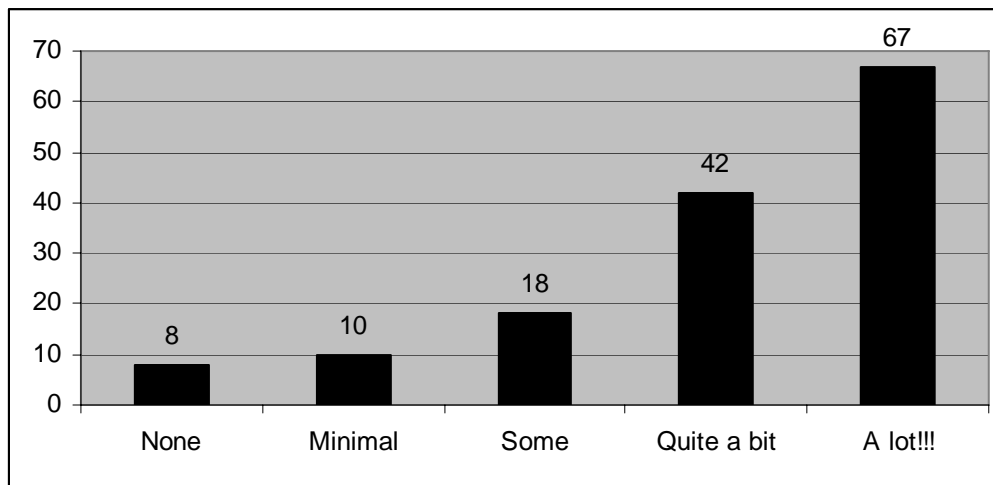


Figure Eleven

*4-H Leader Encourages Youth (Parents)*

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Essential Elements

Results indicate that parents recognize the presence of the four essential elements in their child's 4-H experience. Seventy-five percent of parents said that 4-H provided a sense of "belonging" for their child either "quite a bit" or "a lot" (scores of four or five on a one to five scale). Additionally, 83% of parents reported that 4-H helped their child develop "independence" and "mastery," and 82% reported that 4-H helped their child develop a spirit of generosity (ratings of four or five). Figures Twelve through Fifteen show the frequencies of youth ratings for each of the questions related to the essential elements of 4-H.

Figure Twelve

*Essential Elements- Belonging*

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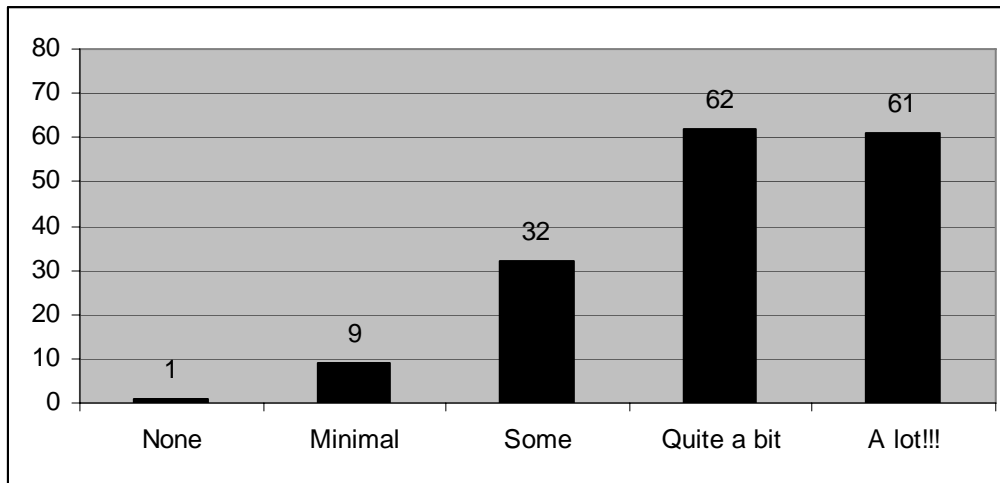


Figure Thirteen

*Essential Elements- Independence*

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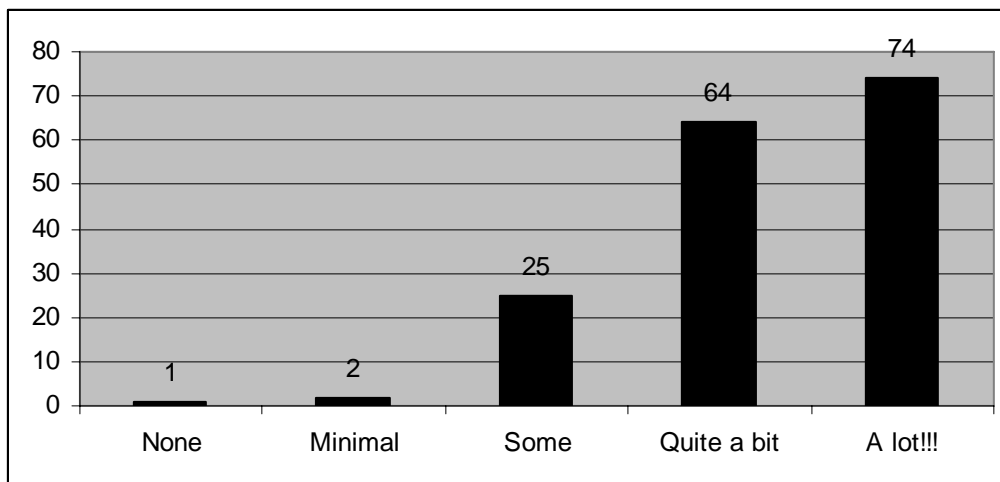




Figure Fourteen

*Essential Elements- Mastery*

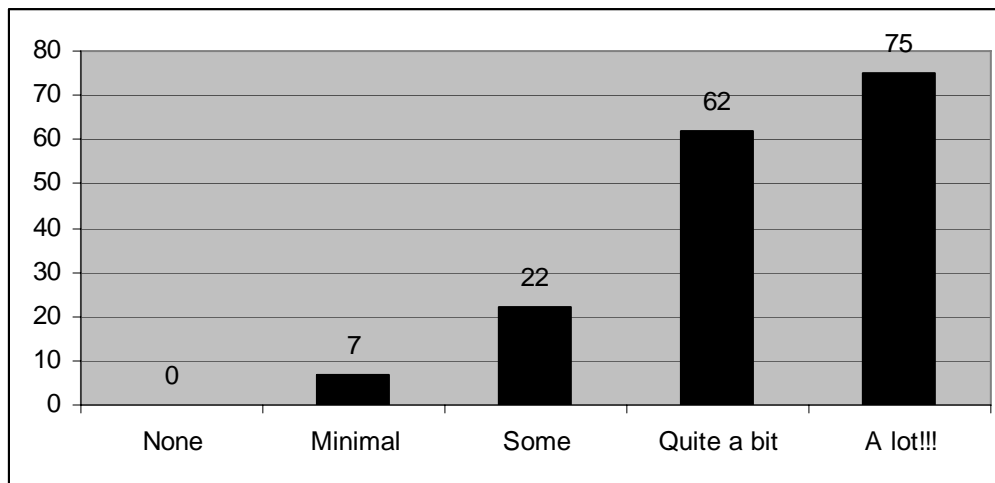
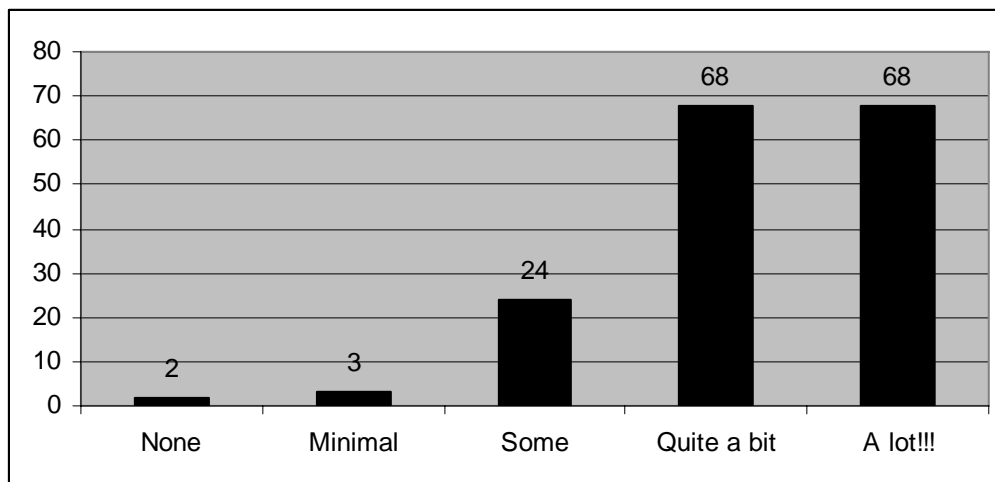


Figure Fifteen

*Essential Elements- Generosity*



### Conclusions

While there is little surprise in discovering that participation in 4-H fairs contributes to life skill development, the results of this study reveal an enhanced understanding of the contribution of specific aspects of fair to particular life skills. Responsibility and cooperation were rated high across all areas. But immediately beyond these two, the life skills changed depending on which part of fair was considered. Competition lends support for developing sportsmanship, and time

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management; life at fair develops helping others, communication, and independence; herdsmanhood supports the development of teamwork and organization; and market animal participation supports the development of decision-making.

While it is interesting to learn that different aspects of fair lead to the development of different life skills, it is also important not to overlook the impact of all aspect of fair on responsibility and cooperation. These skills are particularly valuable to today's workforce, which places high value on employees who are responsible and work well with others. In addition, much of the emphasis at fair has been on competition, yet these results indicate that the impact of fair is not just about who wins, but on the responsibility and teamwork skills that are developed.

The results of the market animal aspect of fair were somewhat surprising. Traditionally, the market animal project is viewed as a way for youth to build skills in record keeping, salesmanship, and financial management. Yet youth in this study did not rate those life particular skills very high, instead reporting that market animal participation contributed most to responsibility and cooperation. These results invite a further examination of the role of the market animal project in youth development. Is it that skills such as financial management and record keeping are not being taught in the market project? Or is it that youth and parents don't see the value of the skills being learned? Or is it that these skills are being learned, but other skills, like responsibility and cooperation, that are learned along the way end up being the most valuable for youth in the long run?

There is a great deal of recent interest in better understanding the role of the market animal project and positive youth development. Many people question the motivation behind participation in the project- is its emphasis on youth development or on selling the animal at the fair auction, often at prices well beyond those of the current livestock market? The results of this study seem to indicate that the market animal project contributes to life skill development in youth in much the same manner as other aspects of fair, and this finding has important implications for the role of the market animal project in 4-H and positive youth development.

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Beyond life skill development, this study demonstrated that the 4-H year leading up to participation in the fair provides an opportunity for the development of self-esteem and coping skills. If 4-H is to take its rightful place in the literature about positive youth development programs, then we must begin to articulate and measure the same outcomes as the rest of the youth development field- that is, beyond life skills alone and toward the developmental outcomes currently expressed as the five “C’s.” While considerable work still needs to be done in the area of conceptual definition and measurement of the “C’s,” the results of this study support that 4-H does contribute to changes in developmental outcomes across time.

Finally, the results of the perceived support from 4-H leaders were not as high as we initially expected. Given that the 4-H program is predicated on the contributions of volunteer leaders, and that the research literature outlines the support of a non-parental adult as a key element to positive youth development, we expected that youth would rate the support they received from the leaders on the highest end of the scale. While we can’t draw easy conclusions about the lower than expected ratings from this study alone, the results of this study certainly need to be considered more fully in future evaluation and research studies. It may be that more work needs to be done in training and supporting 4-H volunteers to help them better understand the important supportive role they play in the lives of young people.

The results of this evaluation are very useful as we begin to consider the role of 4-H fair more intentionally as a youth development program, rather than just a summer event. In many areas of the country, 4-H programs are facing increasing pressure to demonstrate the value of the county fair. The results of this study lend support to the multi-faceted dimensions of fair participation, and to the role these dimensions play in positive youth development.

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Information provided in this report is based on a study of 557 4-H members and 168 parents who participating in county fairs in Crook, Coos, Curry, Douglas, Jackson, and Josephine Counties during the summer of 2006. The study was conducted as part of the 4-H Youth Development Program Evaluation Project at Oregon State University, and published by the 4-H Youth Development Education Department.

Complete information on this and other evaluations can be found on the 4-H website at:

<http://oregon.4h.oregonstate.edu/programs/evaluation/index.html>

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